

# Zachary Nordgren

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## Education

### Marquette University in Milwaukee WI, USA

- BS in Computer Engineering with Minor in Entrepreneurship, Class of 2019
- GPA: 3.3/4.0

## Experience

### Data Analyst at Marquette Energy Analytics, Formerly GasDay (5/14-12/16, 1/18-Present)

- Automated a process to download and format weather data, saving 20 man hours a month
- Implemented customer value-add requests for reports in MATLAB and Excel
- Transformed reporting output from MATLAB plots to dynamic Highcharts enabled web pages

### Software Developer Co-op at Embedtek (1/2017-12/2017)

- Overhauled Qt user interface for a smart workout machine on an Agile team
- Troubleshoot a subwoofer driver's EMI issues in firmware by implementing digital filtering
- Wrote excel macros to automate QA testing and managerial reporting processes

### Engineering Intern at Navy Island (5/2016-8/2016)

- Programmed and installed industrial control cabinets for plywood manufacturing equipment
- Planned and prototyped light table and computer vision system to find defects in wood veneer

## Projects

### 2019 NASA Robotic Mining Competition, Software Lead (Ongoing)

- Designed and wrote robotics control software for an autonomous rover using ROS
- Sourced components and established relationships with vendors to save team over \$4000

### 2018 SIIM annual conference Hackathon, 1<sup>st</sup> place team (Marquette and Medical College of WI)

### 2018 Wrote firmware and IR library for Bluetooth enabled Laser Tag gun (Marquette)

## Skills

### Technologies

- Linux, Qt, ROS, OpenCV, OpenGL, Highcharts, Angular, Firebase, Bootstrap
- Embedded C, C++, VHDL, Python, Java, MATLAB, PLC
- Git, Jira, Agile, Scrum, TDD

### Manufacturing

- CAD, soldering, 3d printing, metal shop and welding experience

### Language

- Working proficiency in English and Spanish

## Activities

President of Marquette student IEEE Chapter (2016-2018)

Sailboat racing crew member

Rock climbing, biking, backpacking